

# TEG<sup>®</sup> 5000 Hemostasis Analyzer System

The new standard of care in hemostasis management

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THE Blood Management Company



## Traditional coagulation testing is proven, but limited

**How often are platelets or fresh frozen plasma (FFP) transfused without a complete picture of the patient's coagulation status?**

**What's your cost to treat an infection caused by an avoidable allogeneic transfusion?**

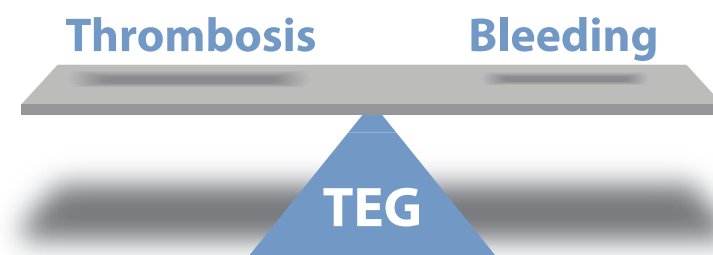
**How often is your patient at risk for thrombosis?**

## Traditional coagulation testing is proven, but limited

Routine coagulation tests are used as a starting place when investigating the cause of bleeding. They indicate the time of fibrin formation through the intrinsic and extrinsic pathways of the coagulation cascade.

While standard tests like PT, PTT, and platelet count have limited capacity to reveal a patient's risk for bleeding, they don't reveal the patient's risk for thrombosis. Nor do standard tests provide specific data about clot quality or stability. The power of the TEG® System is that it reveals the nature of the patient's coagulopathy — such as whether the patient is hemorrhagic, hypercoagulable, or fibrinolytic.

Effective hemostasis and treatment require that physicians have the most complete information to make medical decisions on how to best maintain a patient's coagulation equilibrium.

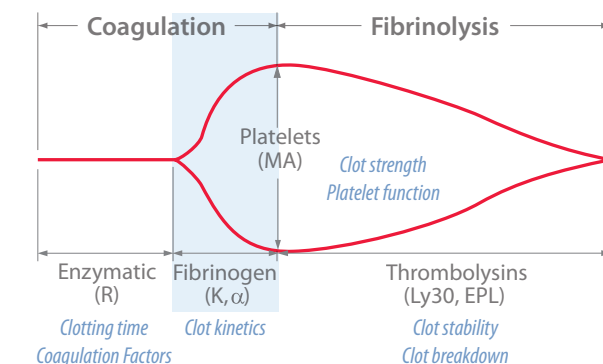


The TEG® System helps you keep hemostasis in balance

## A new standard of care

The TEG® 5000 Hemostasis Analyzer System provides a more complete picture of patients' hemostasis, thus helping you deliver more targeted treatment. The TEG System facilitates your understanding of hemorrhagic or thrombotic risk by revealing:

- Rate of clot formation
- Strength and stability of clot
- Effect of platelet, coagulation factor, and cellular interactions
- Maximum platelet function
- Functional Fibrinogen level - Platelet: Fibrinogen ratio
- Risk of hemorrhage and thrombosis, and identification of fibrinolysis
- If a patient has been inhibited too much or too little



The TEG System provides visual representation of your patient's hemostasis

## The process is simple:

- Small sample of whole blood is collected and placed in the TEG analyzer
- Torsion wire and pin is suspended in sample
- Sample cup rotates
- Clot begins to form and bind the cup and pin
- Time to clot, maximum clot strength, and clot breakdown are measured and analyzed

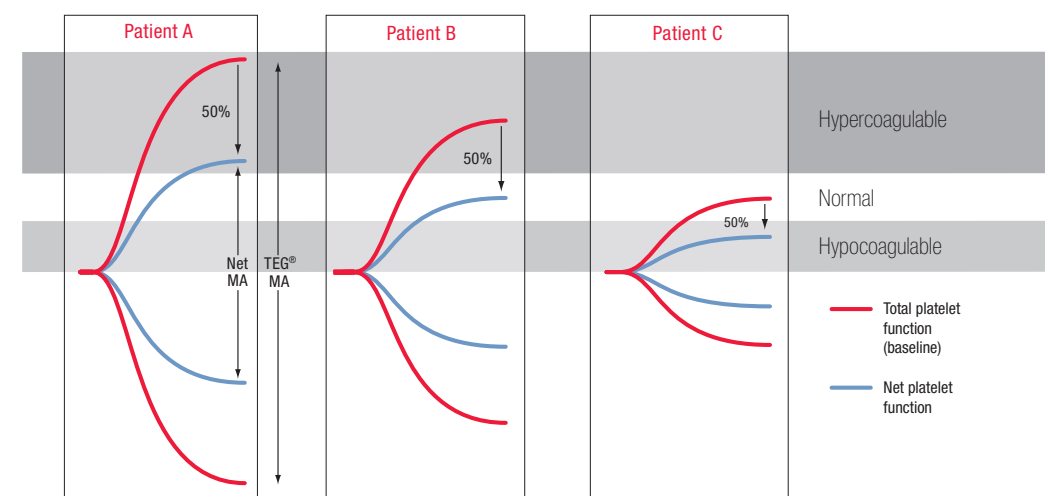
# Added value — understanding platelet inhibition through the PlateletMapping® Assay

## How do you know if 50% inhibition is good or bad, if you don't know the patient's baseline risk?

Many protocols require patients to come off Plavix® and Aspirin® prior to surgery in order to minimize the risk of bleeding. But what if you interrupt anti-platelet medication on a patient who is already predisposed to thrombotic events?

Facilitating or inhibiting platelet function before surgery — without understanding the patient's baseline function — could put your patient at risk for a thrombotic or hemorrhagic event, and increase the cost of patient care: administering too little could lead to clotting, while administering too much could lead to bleeding.

The TEG PlateletMapping® Assay measures platelet function and tells you the patient's level of inhibition as it relates to his baseline function, providing insight into his relative thrombotic or hemorrhagic risk. With this information at hand, you can be more confident making treatment decisions.



The TEG System tells you more than the level of inhibition

**Patient A's** PlateletMapping baseline shows that he was hypercoagulable. The results show that even though he has been inhibited 50%, he remains hypercoagulable.

**Patient B's** PlateletMapping baseline shows that he was hypercoagulable. At 50% inhibition, he is now within the normal coagulation range.

**Patient C's** PlateletMapping baseline shows that he was normal. But after 50% inhibition, he is now hypocoagulable.

PlateletMapping Assays can show you the patient's baseline coagulopathy BEFORE inhibition, and compares that baseline to his current coagulation state. The PlateletMapping Assay enables you to deliver personalized treatment that is based on empirical data specific to that patient.

## Improving patient outcomes

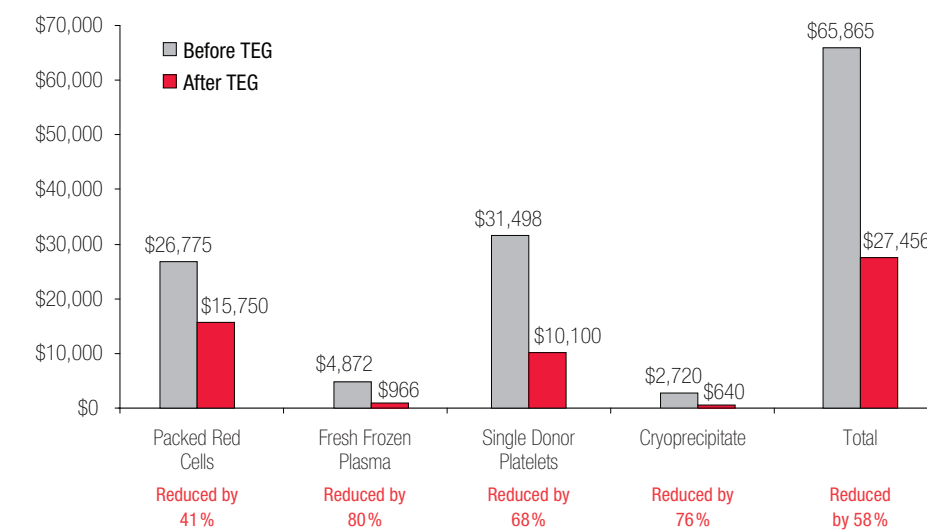
Adding the TEG® 5000 Hemostasis Analyzer System to your hemostasis management can help improve patient outcomes and may decrease healthcare costs.

Patients regularly treated with red blood cells (RBCs) because of bleeding — are then also administered FFP, PCC's, Fibrinogen and platelets because the underlying reason for the bleeding is unknown. By simply having a more thorough understanding of patients' hemostasis, unnecessary allogeneic transfusions could be avoided.

Given that a TEG analysis can aid the prediction of a surgical bleed greater than 95% of the time,<sup>1</sup> you can more appropriately decide whether to re-explore or administer component therapy.

Hospitals can realize cost savings based simply on the reduction of unnecessary blood component transfusions. However, since allogeneic transfusions are associated with greater infection rates, greater complication risks, and longer lengths of stay,<sup>2,3</sup> actual savings may be even more significant.

### 58 % Total Cost Reduction after TEG® Implementation



Transfused Product Cost: 30 patients before TEG® monitoring vs. 30 patients after TEG monitoring. Data obtained from a 710-bed hospital in the southwestern United States.

1 Johansson PI. ISBT Science Series (2007);2:159-167  
2 Leal-Noval et al. Chest 2001;119:1461-1468  
3 Shapiro et al. J Trauma. 2003 Aug;55(2):269-73; discussion 273-4

# TEG® 5000 technical specifications

## Device specifications

- Two (2) independent measuring channels per analyzer, up to eight (8) channels per computer
- Cables included; software sold separately
- **Cup drive** — Line-synchronized, with synchronous motor
- **Temperature control** — Individual temperature control for each channel
- **Measuring technique** — Shear elasticity of a coagulating sample, determined by motion of the pin
- **Transducer** — Electrical-mechanical transducer of movement of torsion wire connected to the suspended pin
- **Sample volume** — 360 µL
- **Power** — External power supply, CSA listed, 120V model @ 60 Hz or 220V model @ 50 Hz
- **Initial warm-up time** — Less than five (5) minutes to warm sample
- **Operating position** — Setting verified with spirit level
- **Dimensions** — 11.4 in. × 8.6 in. × 7.0 in. (29 cm × 22 cm × 18 cm)
- **Weight** — 12 lbs (5.4 kg)

## Computer hardware/software requirements

Computer required for TEG system operation to be obtained from your IT department or purchasing departments or through another external source. To be configured as follows:

## Supported configurations

### A. TEG enabled version (e.g. Laboratory, OR, ICU/CCU, ER, etc.)

- 1.6 GHz Pentium 4 processor or higher
- 1 GB RAM or higher
- 10 GB hard drive
- Available COM port (RS232 9-pin serial port)
- SVGA video adapter running 24-bit color settings in Windows
- CD-ROM drive for installation; recommend CD-RW instead for backup and data transfer
- Network adapter, if network access required
- Windows 2000 Professional – SP4 or higher
- Windows XP Professional – SP2 or higher
- Windows-compatible printer, if hard copy is required
- Uninterruptible power supply (UPS)
- Optional: Touch screen interface (requires either additional COM port or USB port)
- Bar code scanner for patient ID and operator ID information (requires additional COM port)
- TCP/IP connection required if LIS interface is anticipated

### B. TEG remote version (e.g. Laboratory, OR, ICU/CCU, ER, etc.)

- To install and use TAS on a TEG remote version, all of the above is needed except for having an available com port and UPS

# Ordering information

| Description   | List Number      | Quantity                 |
|---|------------------|--------------------------|
| ■ <b>TEG® 5000 Hemostasis Analyzer</b>  | <b>07-033</b>    | <b>1</b>                 |
| ■ <b>Installation Kit</b><br>Up to four (4) TEG Analyzers can be attached to a single installation kit. Includes analog-to-digital converter, cables, software, clinical aid booklet, laminated decision tree, and user's manual  | <b>07-047</b>    | <b>1</b>                 |
| ■ <b>Analytical Software, Remote version</b><br>For remote network viewing of live or stored data/signature graphics, interpretation assistance, and reporting, along with many other features. Includes user's manual  | <b>07-031</b>    | <b>1</b>                 |
| ■ <b>Kaolin</b><br>A standardized reagent that activates the blood sample through the intrinsic pathway for clot activation   | <b>6300</b>      | <b>25</b>                |
| ■ <b>Calcium Chloride</b><br>Each vial contains 5 mL of 0.2M calcium chloride solution  | <b>7003</b>      | <b>1 vial</b>            |
| ■ <b>RapidTEG™ Reagent</b><br>A reagent that activates and accelerates the clotting process. Produces earlier TEG ACT   | <b>07-032</b>    | <b>14</b>                |
| ■ <b>Functional Fibrinogen Test</b><br>Reagent used to measure the functional fibrinogen contribution to clot strength. Produces TEG parameter results and estimated fibrinogen level (FLEV)  | <b>07-034</b>    | <b>15</b>                |
| ■ <b>PlateletMapping® Assay, ADP &amp; AA</b><br>Reagents to measure platelet inhibition relative to total clot function. Aids in antiplatelet therapy decisions for Thromboxane pathway, adenosine diphosphate and glycoprotein IIb/IIIa receptor inhibitors.                                  | <b>07-014</b>    | <b>1 test/Kit</b>        |
| ■ <b>PlateletMapping® MultiPak, ADP &amp; AA</b><br>Reagents to measure platelet inhibition relative to total clot function. Aids in antiplatelet therapy decisions for Thromboxane pathway, adenosine diphosphate and glycoprotein IIb/IIIa receptor inhibitors. Can be used up to 4 patients. | <b>07-040</b>    | <b>up to 4 tests/Kit</b> |
| ■ <b>PlateletMapping® Assay, ADP</b><br>Reagents to measure platelet inhibition relative to total clot function. Aids in antiplatelet therapy decisions for adenosine diphosphate and glycoprotein IIb/IIIa receptor inhibitors.  | <b>07-015</b>    | <b>1 test/Kit</b>        |
| ■ <b>PlateletMapping® MultiPak ADP</b><br>Reagents to measure platelet inhibition relative to total clot function. Aids in antiplatelet therapy decisions for adenosine diphosphate and glycoprotein IIb/IIIa receptor inhibitors. Can be used up to 4 patients.                                | <b>07-041</b>    | <b>up to 4 tests/Kit</b> |
| ■ <b>PlateletMapping® Assay, AA</b><br>Reagents to measure platelet inhibition relative to total clot function. Aids in antiplatelet therapy decisions for Thromboxane pathway inhibitors utilising arachidonic acid as the agonist.  | <b>07-016</b>    | <b>1 test/Kit</b>        |
| ■ <b>PlateletMapping® MultiPak AA</b><br>Reagents to measure platelet inhibition relative to total clot function. Aids in antiplatelet therapy decisions for Thromboxane pathway inhibitors utilising arachidonic acid as the agonist. Can be used up to 4 patients.                            | <b>07-042</b>    | <b>up to 4 tests/Kit</b> |
| ■ <b>Level I Control</b><br>Whole blood coagulation control formulated to produce normal results  | <b>8001</b>      | <b>12 vials</b>          |
| ■ <b>Level II Control</b><br>Whole blood coagulation control formulated to produce abnormal results   | <b>8002</b>      | <b>12 vials</b>          |
| ■ <b>Disposable Cups and Pins</b>   | <b>6211</b>      | <b>20</b>                |
| ■ <b>Disposable Cups and Pins with Heparinase</b><br>Each cup contains enough Heparinase I to reverse 6 International Units of heparin  | <b>6212</b>      | <b>20</b>                |
| ■ <b>User's Manual</b>  | <b>06-510-IE</b> | <b>1</b>                 |
| ■ <b>Site Administrator's Guide</b>   | <b>06-520</b>    | <b>1</b>                 |
| ■ <b>Pipette Kit 1000ul</b><br>Kit includes 1 Pipette plus 1 box of Pipette Tips 1000ul   | <b>01-097</b>    | <b>1</b>                 |
| ■ <b>Pipette Kit 100ul</b><br>Kit includes 1 Pipette plus 1 box of Pipette Tips 100ul   | <b>01-096</b>    | <b>1</b>                 |

## Technical information

- **Dimensions**11.4 in. × 8.6 in. × 7.0 in. (29 cm × 22 cm × 18 cm)
- **Weight**12 lbs (5.4 kg)
- **Voltage and Operating Frequency**120 V @ 60 Hz  
220 V @ 50 Hz